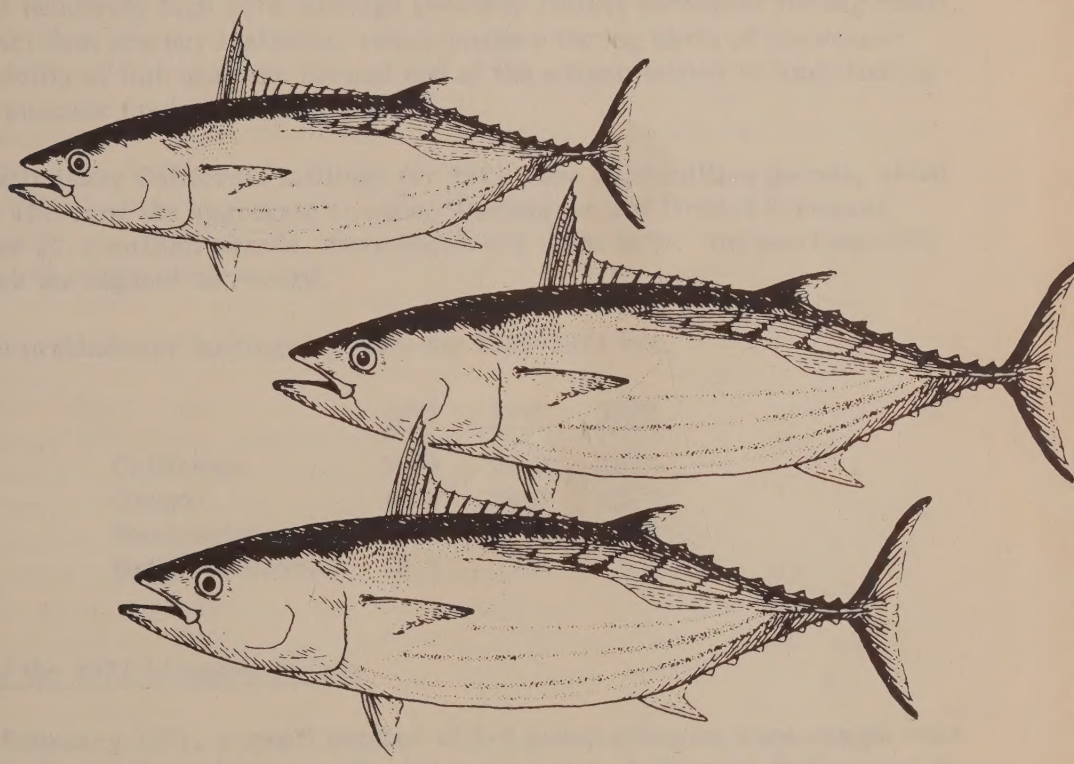
JANUARY 1972, No. 1

FISHING INFORMATION

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



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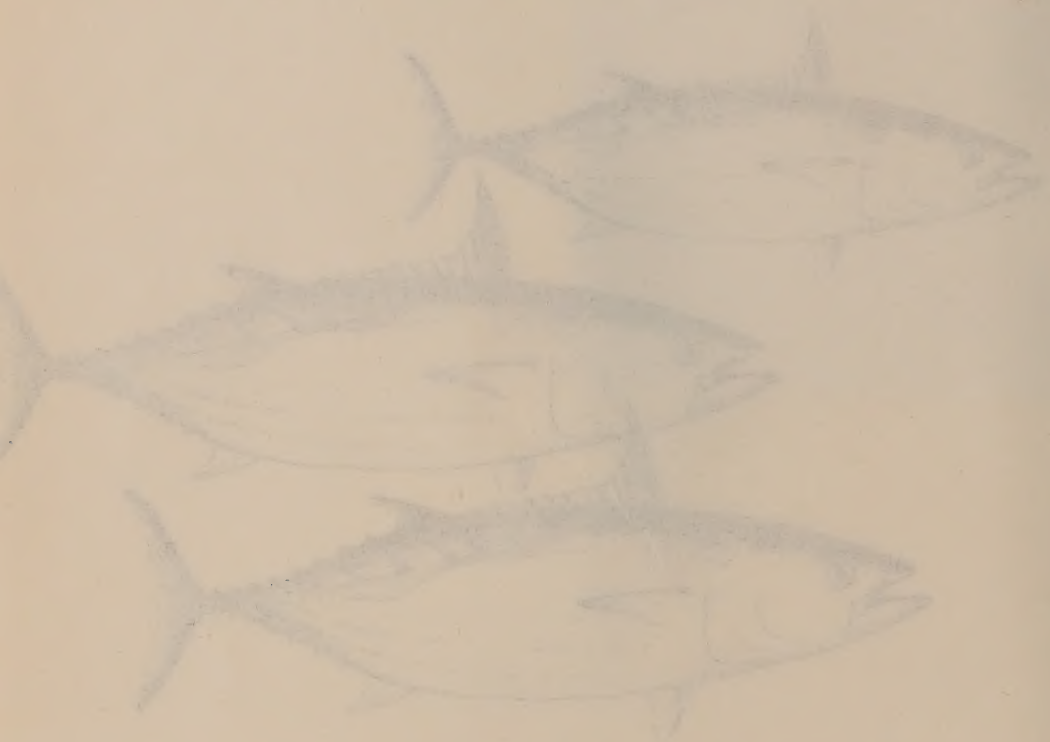

ALBACORE LANDINGS FOR 1971 SEASON

Preliminary west coast landings for the 1971 albacore season are about 54 million pounds (27,000 tons) which is slightly less than the 1970 total, 58 million pounds (29,000 tons), and higher than the 1961-1970 average, 47 million pounds (23,500 tons).

The relatively high 1970 landings probably reflect increased fishing effort. Although exact data are not available, rough weather during parts of the season and unavailability of fish near the normal end of the season tended to limit fishing activity and success for individual boats.

Preliminary California landings for 1971 were 30.0 million pounds, about the same as 1970, and the aggregate Oregon, Washington and British Columbia landings were 23.4 million pounds, down about 16% from 1970. British Columbia landings were the highest on record.

The preliminary landings by state for 1969-1971 are:

	1971	1970	1969
California	30.0	29.9	14.7
Oregon	16.8	21.8	29.8
Washington	2.9	4.3	3.5
British Columbia	3.7	1.6	2.5

Highlights of the 1971 Albacore Season

In February 1971, a small number of 2-3 pound albacore were caught near Uncle Sam Bank, but these fish were thought to be young of albacore that remain in this area throughout the year. The first report of a migrating albacore caught in the West Coast fishery for 1971 was on June 25 when Oregon State University's R/V YAQUINA, which was on an oceanographic cruise, landed a 14 pound fish in 59° F waters about 420 miles west of Cape Blanco, Oregon. A day later sport boats and private yachts reported albacore caught near the Sixty Mile Bank off San Diego. Sport boats operating off southern California continued to fish with success from San Clemente Island to the 213 fathom spot and from 35 miles southwest of Point Loma to the dumping grounds on 12-18 pound fish. Sport boats out of San Diego had good fishing throughout the month of July.

The National Marine Fisheries Service R/V DAVID STARR JORDAN left San Diego on June 28 on a 19-day albacore-oceanography cruise to investigate the migration route followed by albacore when they enter the North American fishery near the beginning of the season. JORDAN's first catches were made on June 30 about 200 miles west of San Diego on the cruise track to the study area along longitude 135° W between latitudes 33° and 41° N. Catches made along 135° W suggested a southerly distribution of fish.

The albacore price settlement of $630 per ton delivered to the canneries was reached on July 2. In addition, the canners agreed to pay $10 per ton for use in albacore research and scouting. The settlement was the earliest in 3 years; however, the majority of the albacore fleet did not begin fishing until the second week of July. As the boats moved to the fishing grounds two widely separated fishing areas developed. One was from San Celmente Island to Geronimo Island, Baja California with the most successful location being about 20-40 miles offshore between Cape Colnett and Geronimo Island. The fishery off Baja California was the best in this area since 1967. On July 5 the F/V SUNRISE on a chartered cruise for the Oregon Fish Commission indicated commercial quantities of albacore 120 miles off Cascade Head to Reedsport in 57°-59° F waters. Boats had good catches in this area until July 13. The area off Grays Harbor also reported good fishing during this period.

By the end of July fishing was spotty off Baja California though deep running albacore were still present and some bait boats had days of good fishing during the last week of July. As fishing success decreased off southern California, catches increased in the area of 50-100 miles west of Eureka on 12-14 pound fish. Also, when weather permitted, boats reported good catches off central California. Fish catch off Newport and La Push increased during the last 10 days of July, but dropped on August 1. At the end of July about 4,000 tons of albacore had been landed on the west coast.

Fishing continued to be good from Eureka to Crescent City until August 12 and fishing was again reported off Grays Harbor, Cape Flattery and some off La Push. Except for the Cape Flattery area the fishing in Oregon and Washington was spotty from the middle of August until the season ended. However, it was learned after the season that Canadian and a small number of U.S. jig boats had very good fishing off Cape St. James on the Queen Charlotte Islands for about 2 weeks during August and good fishing off the northwest tip of Vancouver Island during early September and off Estaban Point near the end of September.

By mid-August the best fishing along the U.S. coast was from Morro Bay to the Farallon Islands on 9-11 pound fish. Weather continued to have an effect on the number of fishing days, but with better weather a large fleet moved into this area. Average catches were good, but there were very few individual high scores which was typical of this season's albacore fishery.

Other areas along the coast had only spotty catches during the last 2 weeks of August. Some fishing was reported in the Gorda Seavalley area, but albacore fishing off the southern California area was over by the end of the first week in August. At the end of August the total landings for the west coast increased to 12,000 tons.

Most of the boats fishing off central California in early September were forced into port because of high winds. When the winds abated catches did not reach the numbers of late August. Fishing was very spotty on 7-9 pound fish. Spotty fishing continued throughout September in all areas along the coast. Several boats unloaded fish in September that were caught earlier, and at the end of September the season's total landings were approximately 21,000 tons.

Four areas of fishing were evident in October. Point Arguello to Monterey Bay and Newport, Oregon to the Columbia River had spotty catches. The area of best fishing in early October was about 170-180 miles west of Vancouver Island and 150 miles off Cape Flattery. Fishing in these areas were fairly consistent for the first 2 weeks of October. At the end of October total albacore landings were about 24,500 tons.

The American Fishermen's Research Foundation, established by the albacore fishing industry to administer a fund derived from the $10 per ton assessment paid by the canners on albacore landed by U.S. fishermen, chartered four jig boats for albacore research and scouting in cooperation with the National Marine Fisheries Service La Jolla Laboratory during the month of October. The boats left San Diego on October 4 and travelled in pairs working the waters out to about 250 miles off the west coast between San Diego and San Francisco. Fish were located in relatively large numbers about 175-200 miles off Morro Bay, and in moderate quantities about 150 miles off Point Arguello; however, in most other areas, fishing was slow. The fish located off Morro Bay were small, about 7-9 pounds, while those off Point Arguello were of mixed size. In addition to trolling for albacore the vessels collected oceanographic and weather data and tagged a total of 912 albacore. Most of the fish that were tagged, 72%, were 7-8 pounds and 11%, 12-16 pounds. Results of the tagging should assist NMFS fishery scientists in assessing what proportion of albacore return to enter the U.S. fishery in subsequent years and what proportion enter the Japanese fisheries in the central and western Pacific and in coastal waters off Japan. Data collected by the four boats are being analyzed by scientists at the NMFS La Jolla Laboratory.

By the end of October the albacore season had ended. Some boats continued to fish but only small numbers of albacore were caught.

Although exact figures are not available, it appears that more boats fished for albacore this season than in past seasons and the season was shorter than 1970. Thus, although the total west coast albacore landings were down only slightly from last year, catches by individual fishermen were estimated to be 5-20% lower than last year.

Staff, Fishery-Oceanography Group
R. Michael Laurs, Leader

NARRATIVE DESCRIPTION OF OCEAN TEMPERATURE CONDITIONS
JANUARY 1972

Northeastern Pacific

Anomalous sea surface temperature conditions in January 1972 persisted in much the same pattern that characterized November and December of 1971. The main features of this pattern are above-normal temperatures in the central ocean region west of longitude 140° W, between latitudes 25° N and 50° N, and below-normal temperatures in a broad peripheral zone along the North American coast and to the northeast and southeast of the central region (Fig. 5). Within this pattern, which has been present since November 1971, minor changes from month to month have occurred in the strength and location of deviations from the long term means. In particular, the temperature deviations just south of the Alaska Peninsula changed from negative to positive between December 1971 and January 1972, while south of latitude 50° N the area of below-normal temperatures extended slightly to the west. In the central region of warmer-than-normal water, the area in which deviations exceeded 4° F was smaller in January than in the previous month but was still centered north of the Hawaiian Islands, at about 35° N.

This persisting pattern of sea temperature deviations appears to have been maintained by continued anomalous high barometric pressure north of 45° N and west of 140° W. The maximum positive departures from normal pressure reached 8 millibars in January 1972, in the vicinity of 50° N, 145° W (compare Figs. 1 and 2). In the previous month, positive departures near 47° N, 157° W exceeded 16 millibars. The resultant winds had generally stronger-than-normal southward components east of 140° W, reinforcing the below-normal temperature condition in that zone by advection of cold water. In the central region, the relation of the resultant winds to normal flow was variable and contributed to minor alterations in the pattern of anomalous temperatures.

Eastern Tropical Pacific

Sea surface temperatures were warmer-than-normal along most of the Central American coast from Panama to Mazatlan in January 1972 (Fig. 8). Maximum deviations from the long term mean exceeded 4° F in the vicinity of Salina Cruz. The latter reflects an absence, because of reduced winds, of cold surface water normally present in the Gulf of Tehuantepec in January. Warmer-than-normal water also occurred north of the equator between longitudes 80° W and 100° W where the Inter-Tropical Convergence Zone was a few degrees south of its usual position and winds and cloudiness were below normal.

Sea water temperatures south-southeast of the Galapagos Islands were up to 4° F warmer-than-normal. This condition was possibly associated with reduced southeast winds due to a southward shift of the southern Pacific anticyclone from its usual position.

Temperatures within a few degrees north and south of the equator continued to be below normal except in the region from 158° W to 166° W where positive departures were recorded. The maximum negative departures reached 4° F near 115° W reflecting, in part, a small northward displacement of equatorial upwelling. Temperatures also were below normal in most of the zone from 10° N to 20° N, between longitudes 150° W and 170° W.

Staff, Fishery-Oceanography Group
R. Michael Laurs, Leader

SEA SURFACE TEMPERATURE CHARTS, PACIFIC OCEAN

JANUARY, 1972

Acknowledgements

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National Marine Fisheries Service, La Jolla, California;
Honolulu, Hawaii; Seattle, Washington
National Weather Service, San Diego, California
National Ocean Survey, Pacific Marine Center, Seattle, Washington
Pacific Environment Institute, Fisheries Research Board of Canada
West Vancouver, British Columbia, by H. J. Hollister from observations; D. Smith at Langara Island; J. Godin at Cape St. James Light; L. Collins at Kains Island Lightstation;
O. A. Edwards at Amphitrite Point Light
Scripps Institution of Oceanography, La Jolla, California, by Margaret Robinson
U. S. Naval Weather Service, Fleet Numerical Weather Central, Monterey, California
Fishing Vessels ANTONINO C., APOLLO, AQUARIUS, BALBOA, BOLD CONTENDER, CAROL VIRGINIA, CHERYL MARIE, CONQUEST, EASTERN PACIFIC, EILEEN M., ELSINORE, FRANCES ANNE, GINA KAREN, INDEPENDENCE, JO LINDA, KATHLEEN, LARRY ROE, LOU JEAN II, MARIETTE, MARY ANTONETTE, MARY BARBARA, MARY ELIZABETH, MERMAID, POLARIS, PURITAN, SAN JUAN, SANTA ROSA, VIVIAN ANN

Charts

Figure 1. -- Twelve year mean (1961-1972) observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots) and average wind speed (knots) regardless of direction.

Figure 2. -- Observed sea level values of barometric pressure (millibars), resultant wind direction (degrees true), resultant wind speed (knots), and average wind speed (knots) regardless of direction.

Figure 3. --Mean sea surface temperature, eastern north Pacific Ocean. Squares show temperatures at weather ship stations. Numerals on shore are temperatures at coastal and lightship stations.

Figure 4. --Mean sea surface temperature chart, western north Pacific Ocean.

Figure 5. --Deviation of sea surface temperatures, eastern north Pacific Ocean from long term charts of H.O. 225. Hatched areas are colder in 1972.

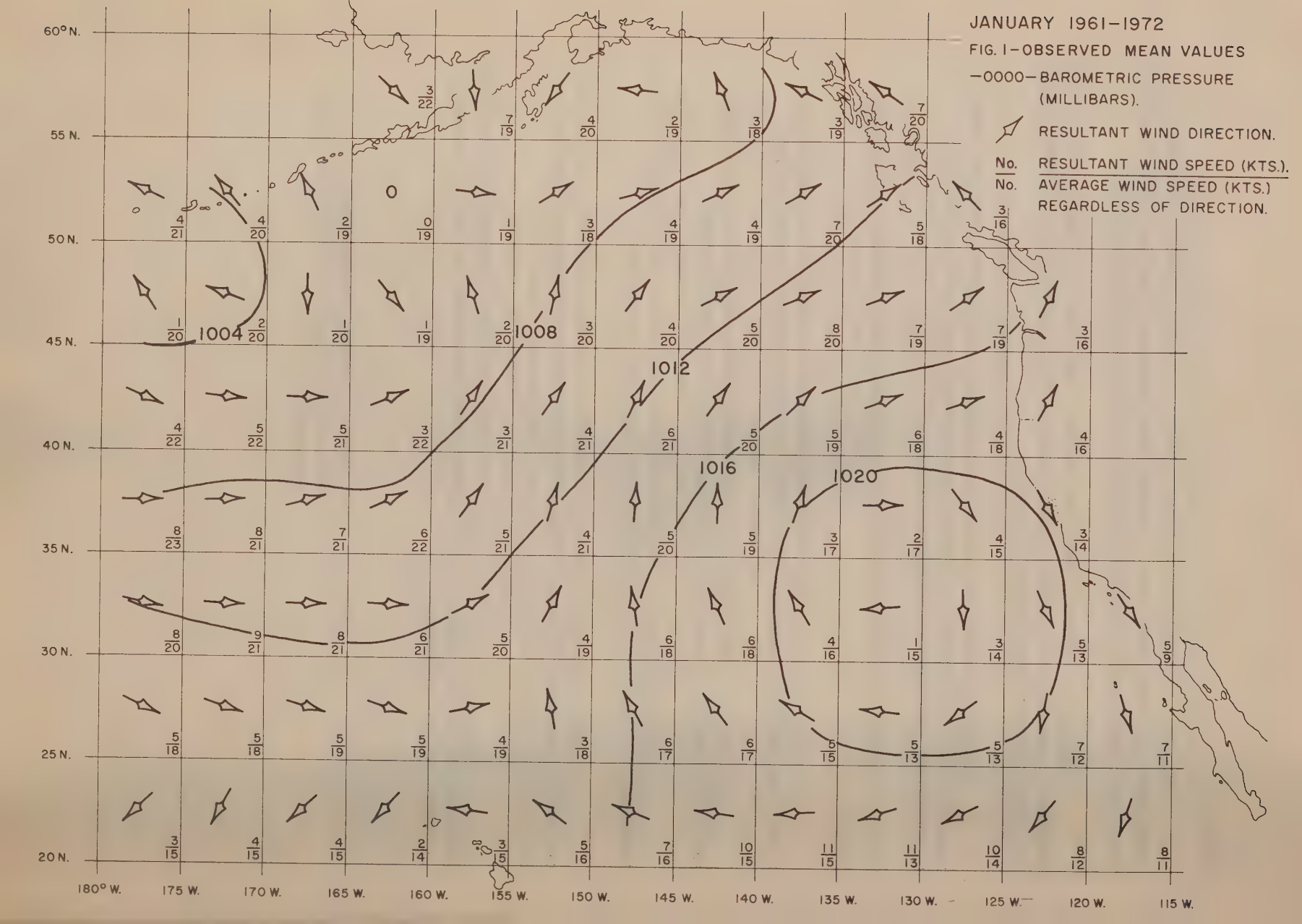
Figure 6. --Deviation of sea surface temperatures, eastern north Pacific Ocean from those of January 1971. Hatched areas are colder in 1972.

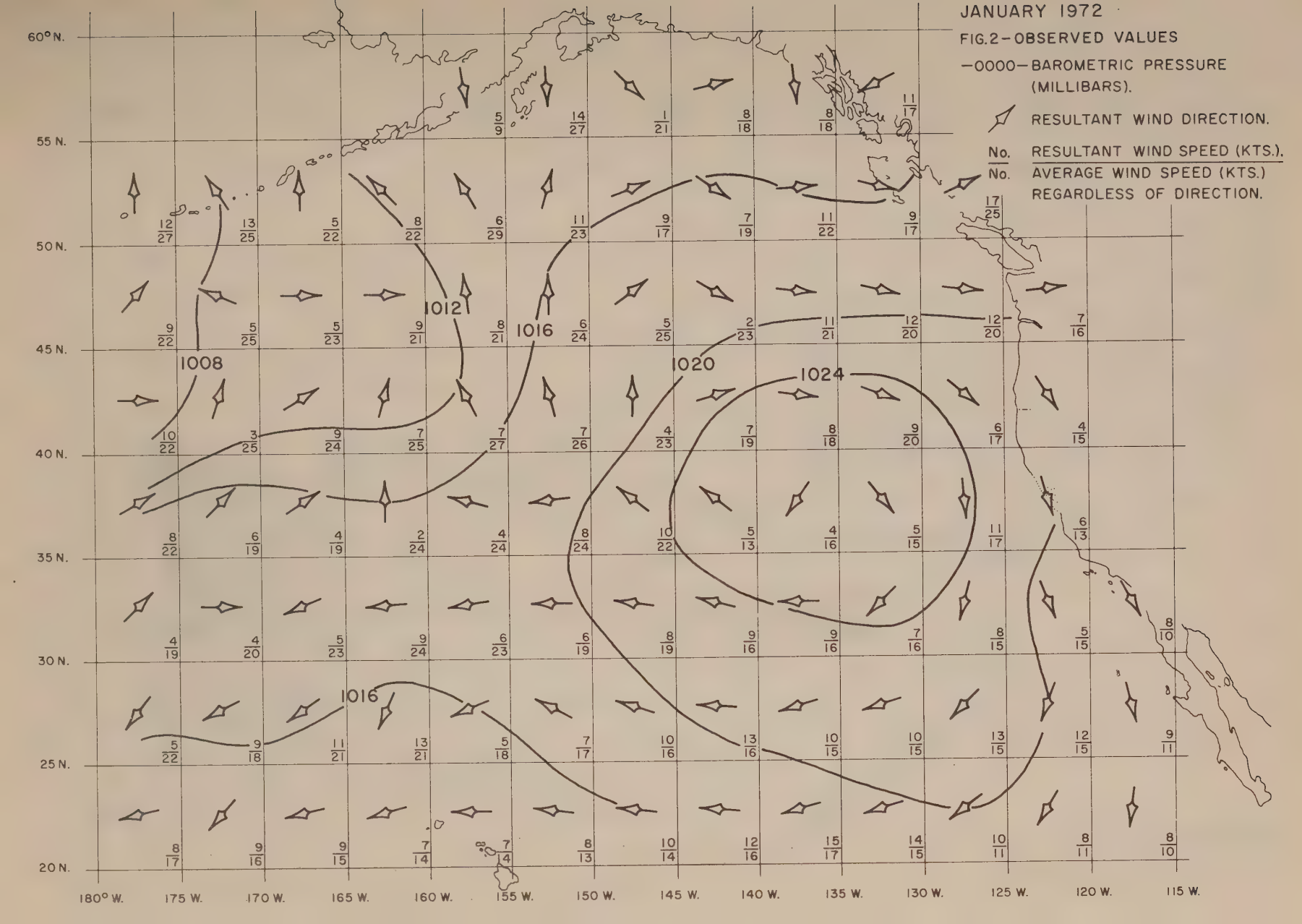
Figure 7. --Mean sea surface temperature, eastern tropical Pacific Ocean. Numerals on shore are temperatures at coastal stations.

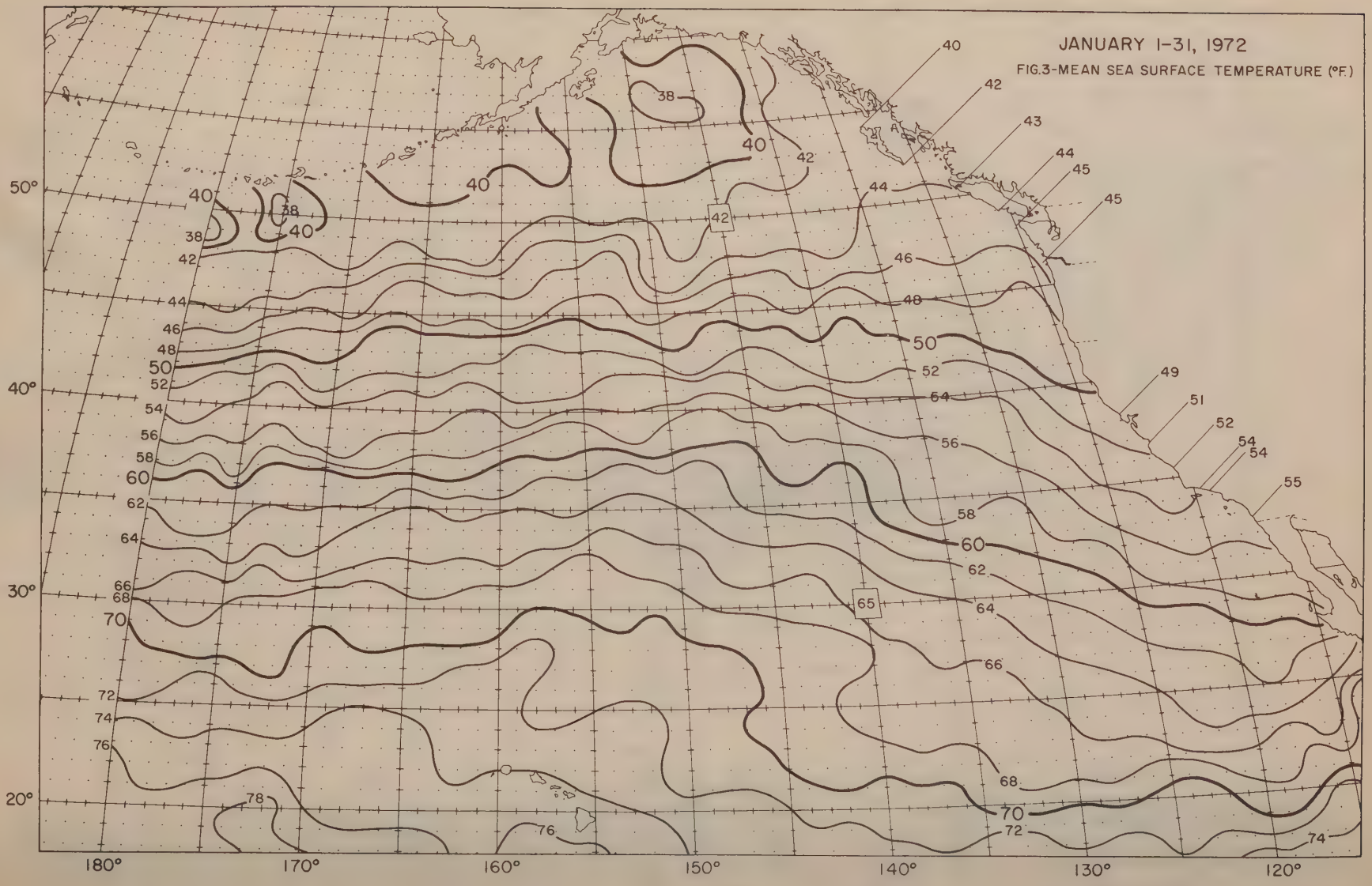
Figure 8. --Deviation of sea surface temperatures, eastern tropical Pacific Ocean from long-term charts of H.O. 225 and NAVOCEANO sp-123. Shaded areas are colder in 1972. Contours are dashed in sparse data areas.

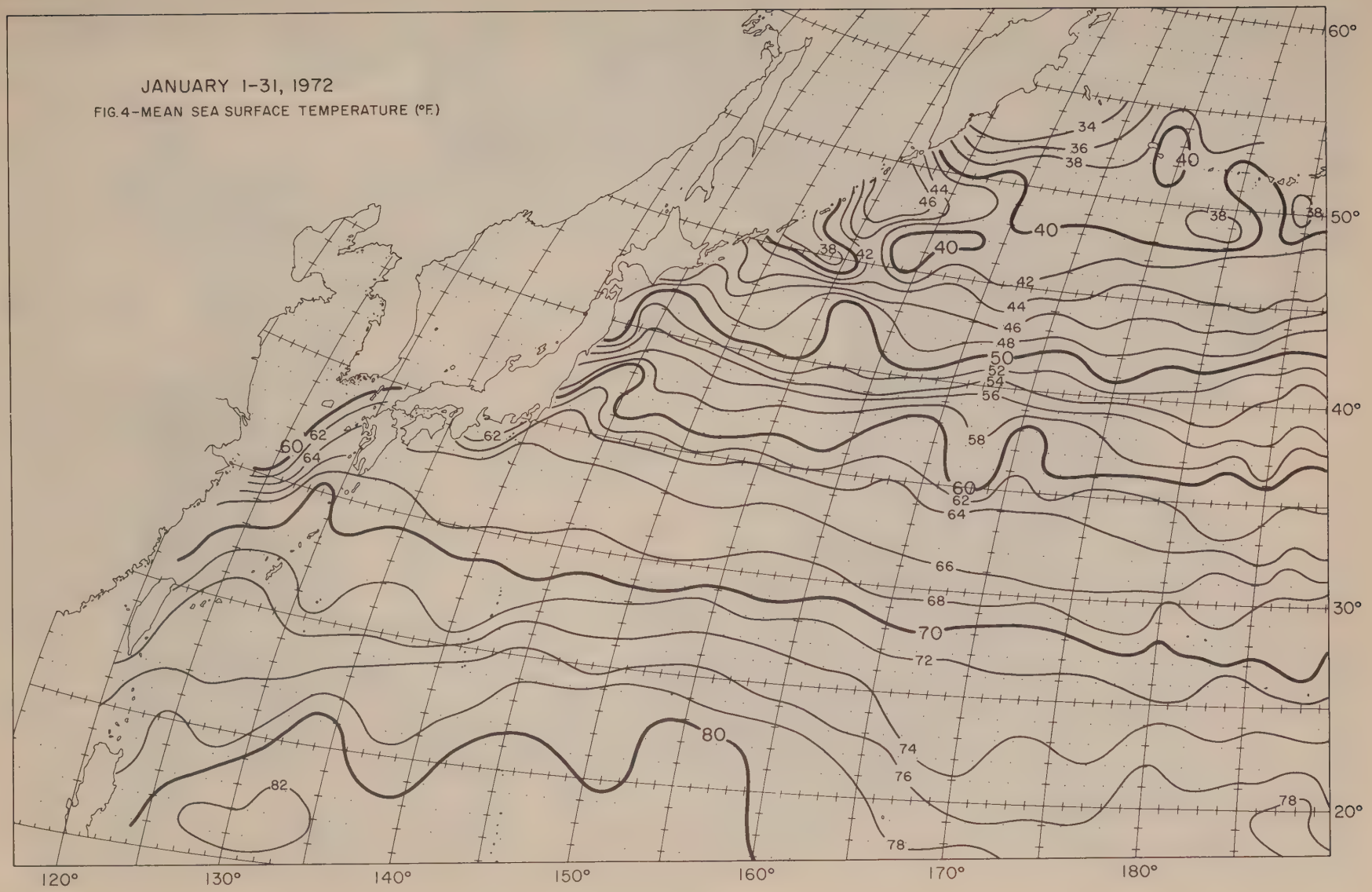
Figure 9. --Deviation of sea surface temperatures, eastern tropical Pacific Ocean from those of January 1971. Shaded areas are colder in 1972. Contours are dashed in sparse data areas.

James A. Renner, Fishery Biologist
Kenneth S. Raymond, Scientific Illustrator
February 4, 1972


JANUARY 1961–1972
FIG. 1–OBSERVED MEAN VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1004
1008
1012
1016
1020
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


JANUARY 1972
FIG.2-OBSERVED VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.).
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1008
1012
1016
1020
1024
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.


JANUARY 1-31, 1972
FIG.3-MEAN SEA SURFACE TEMPERATURE (°F.)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JANUARY 1-31, 1972
FIG.4-MEAN SEA SURFACE TEMPERATURE (°F.)
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°
34
36
38
40
44
46
42
48
50
52
54
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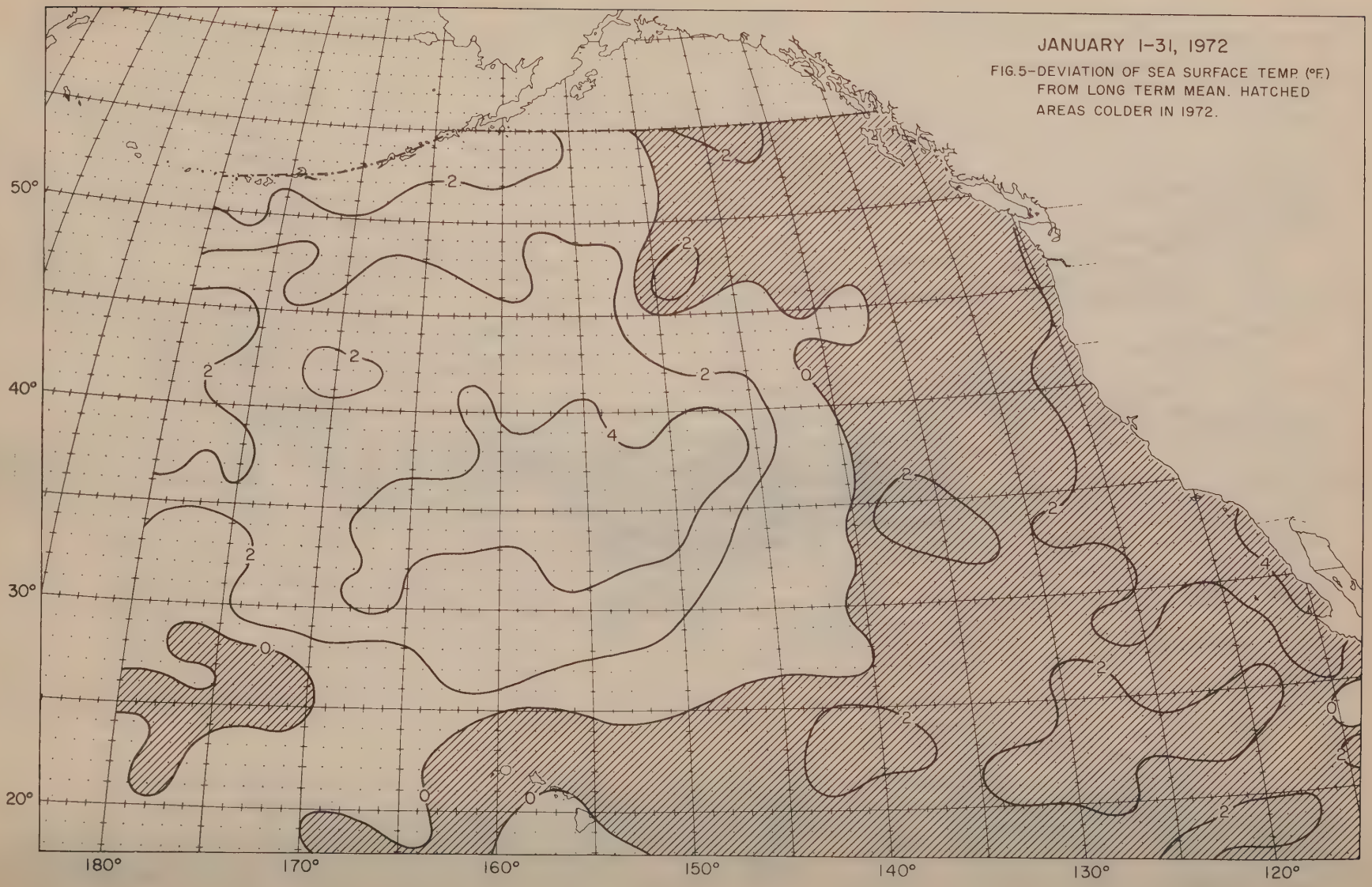
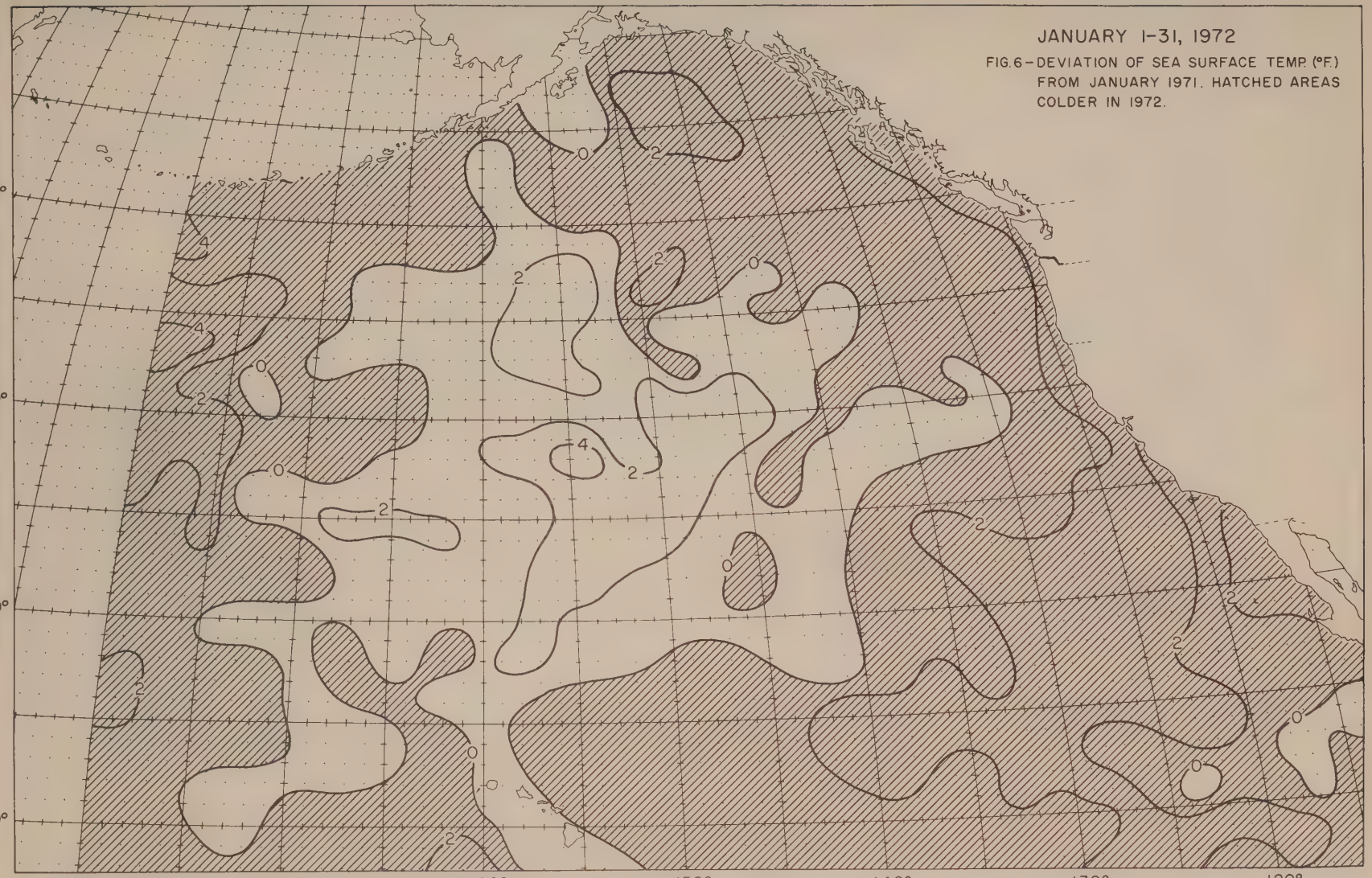
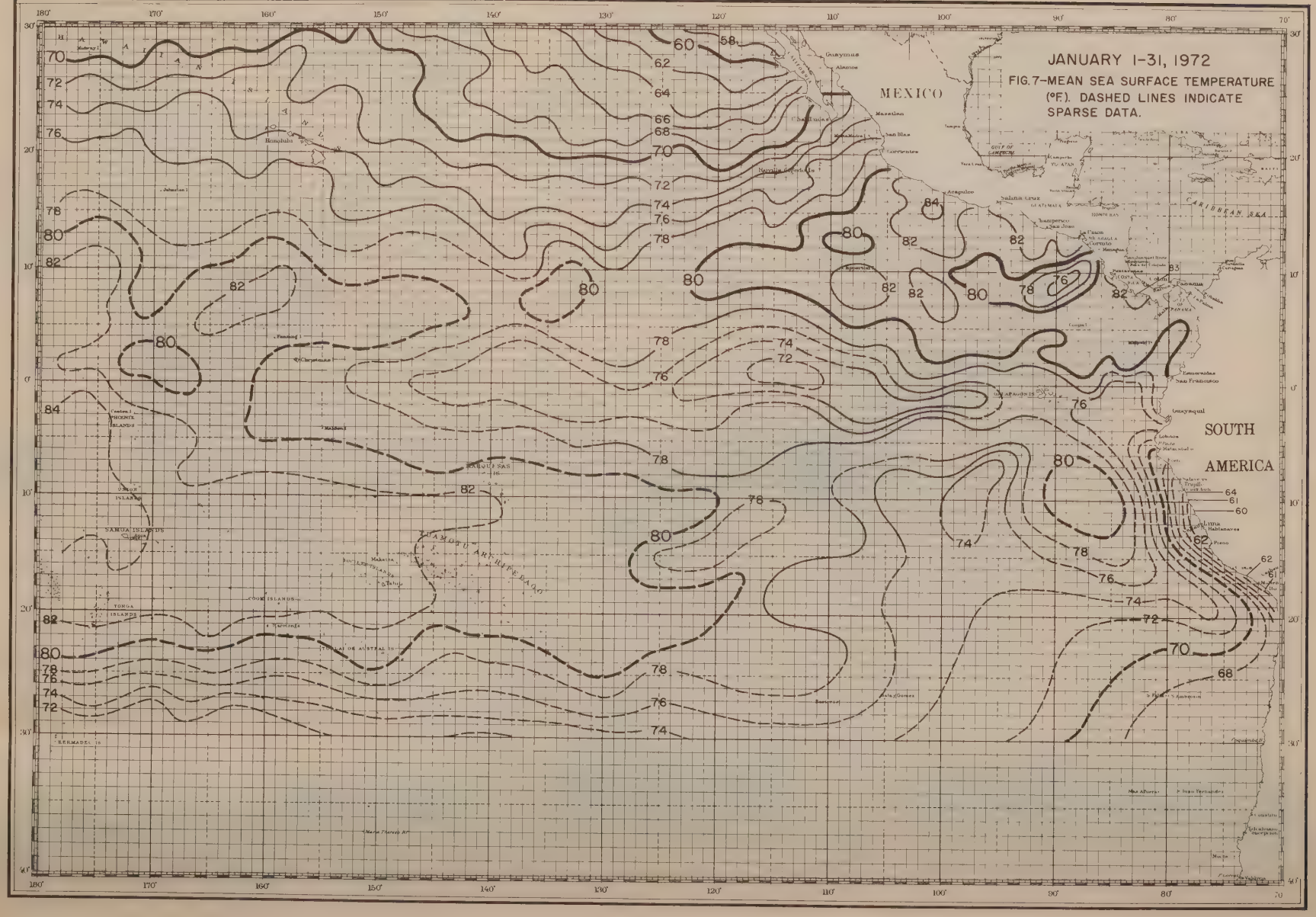

JANUARY 1-31, 1972
FIG.5-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN. HATCHED AREAS COLDER IN 1972.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
2
4
0


JANUARY 1-31, 1972
FIG.6-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM JANUARY 1971. HATCHED AREAS COLDER IN 1972.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


JANUARY 1-31, 1972
FIG. 7-MEAN SEA SURFACE TEMPERATURE (°F). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GULF OF CALIFORNIA
Acapulco
Salina Cruz
Guayaquil
Lima
Callao
Honolulu
Hawaiian Islands
Christmas
Fanning I.
Canton I.
PHOENIX ISLANDS
SAMOA ISLANDS
TONGA ISLANDS
COOK ISLANDS
TUAMOTU ARCHIPELAGO
Tahiti
Marquesas
Easter I.
Juan Fernandez
Mas Afuera
BERMUDA
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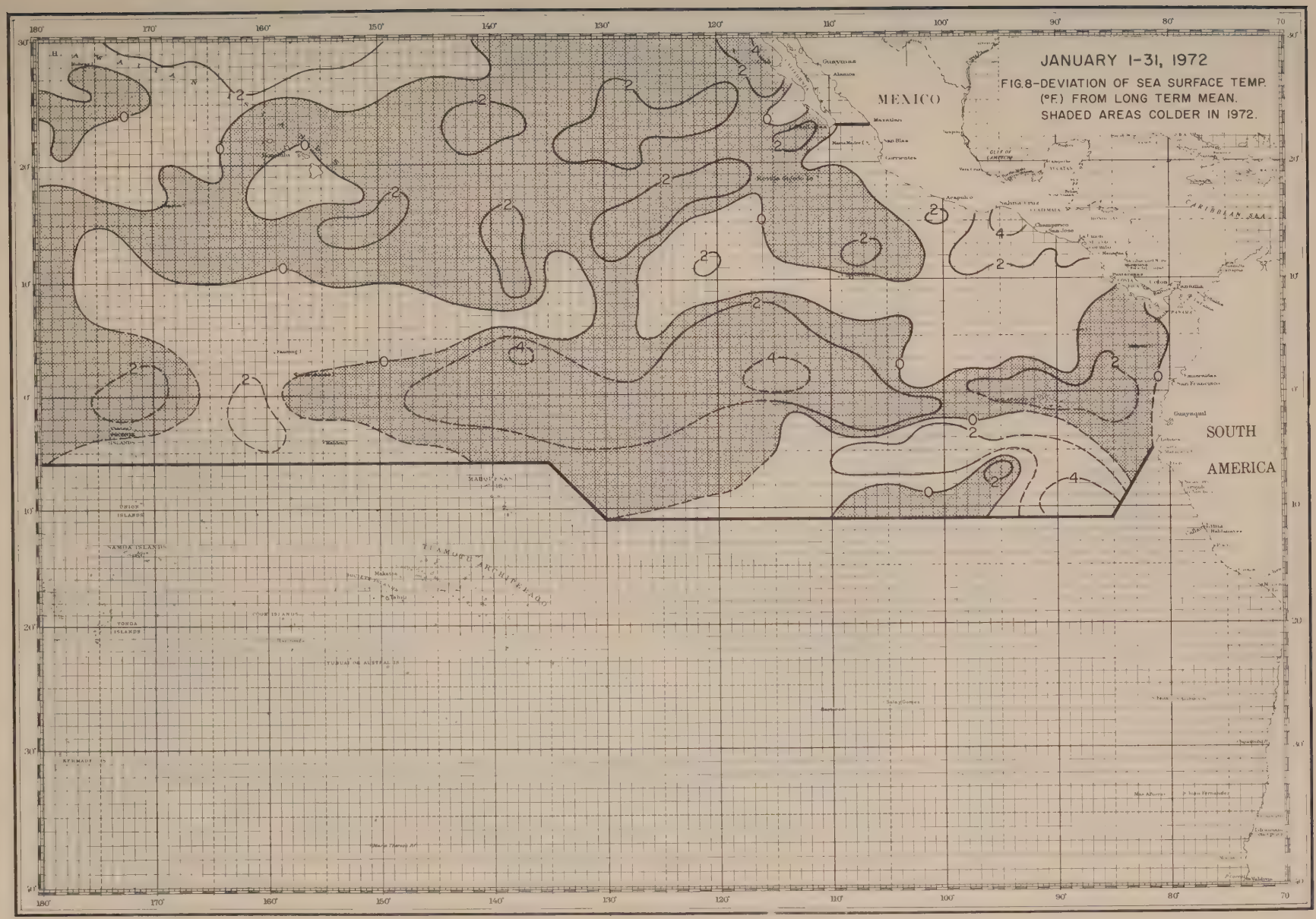
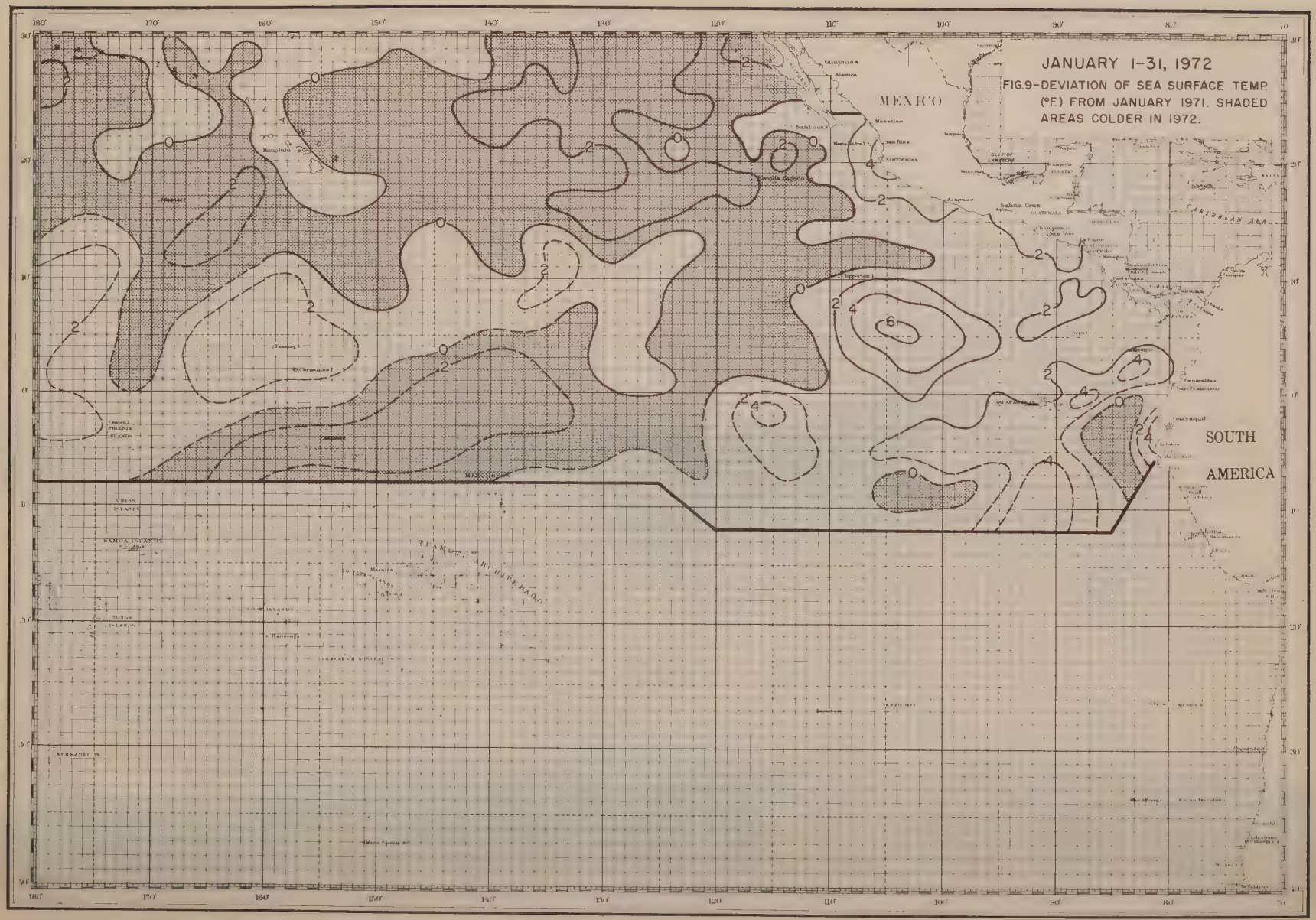

JANUARY 1-31, 1972
FIG.8-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM LONG TERM MEAN.
SHADED AREAS COLDER IN 1972.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°


JANUARY 1-31, 1972
FIG.9-DEVIATION OF SEA SURFACE TEMP. (°F.) FROM JANUARY 1971. SHADED AREAS COLDER IN 1972.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
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70°
30°
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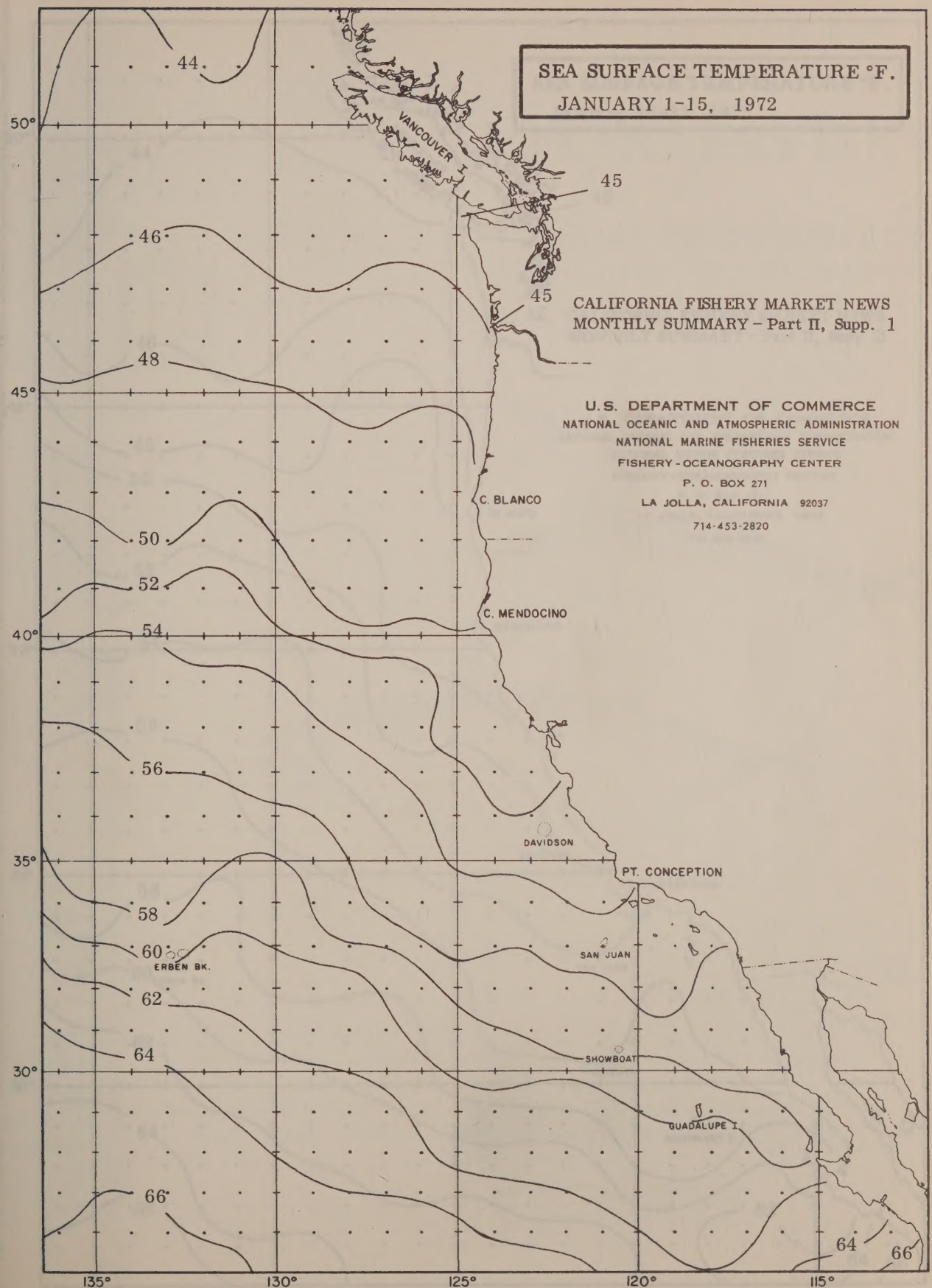
10°
20°
30°
40°


SEA SURFACE TEMPERATURE °F.
JANUARY 1-15, 1972
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VANCOUVER I.
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C. MENDOCINO
DAVIDSON
PT. CONCEPTION
SAN JUAN
SHOWBOAT
GUADALUPE I.
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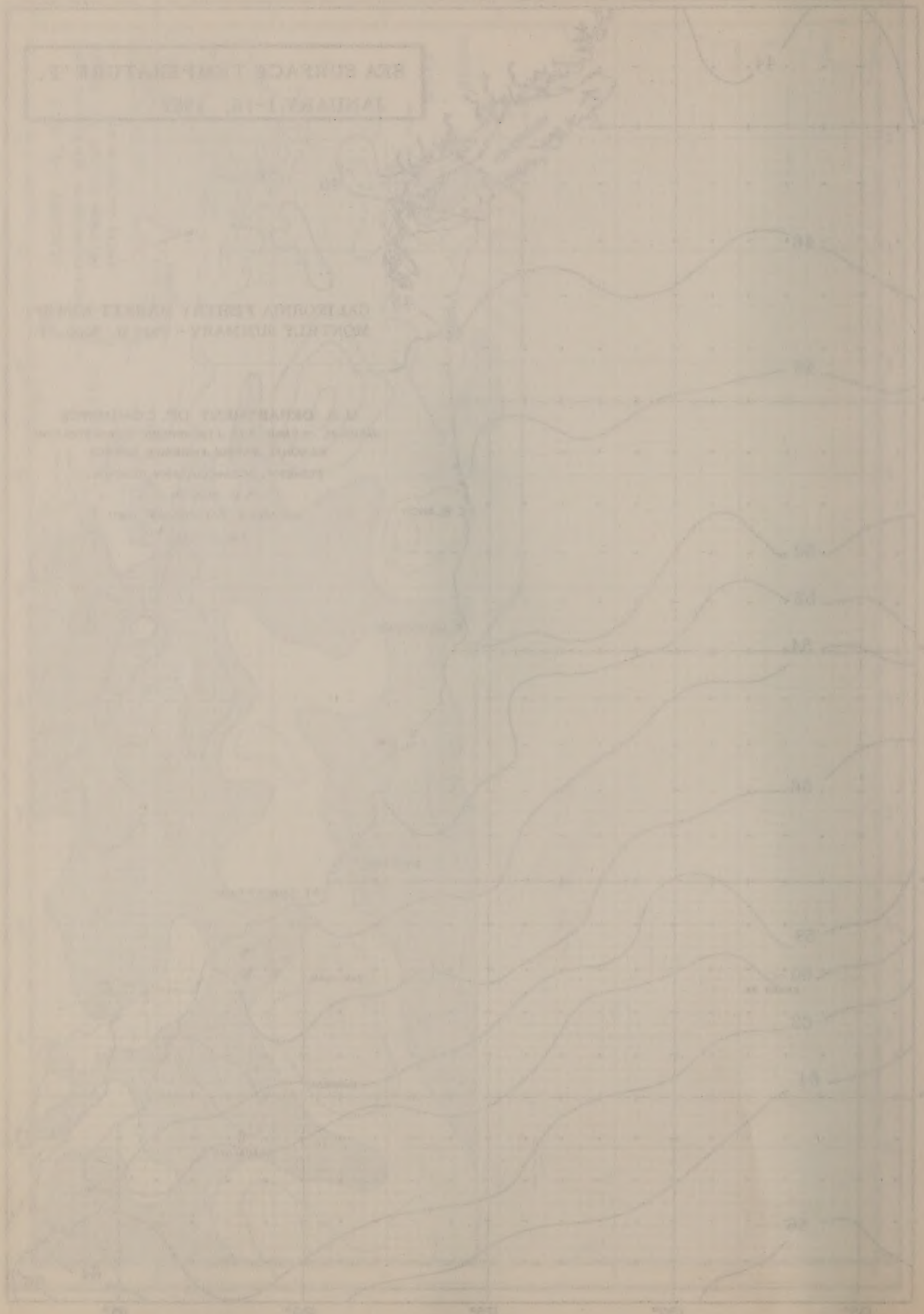

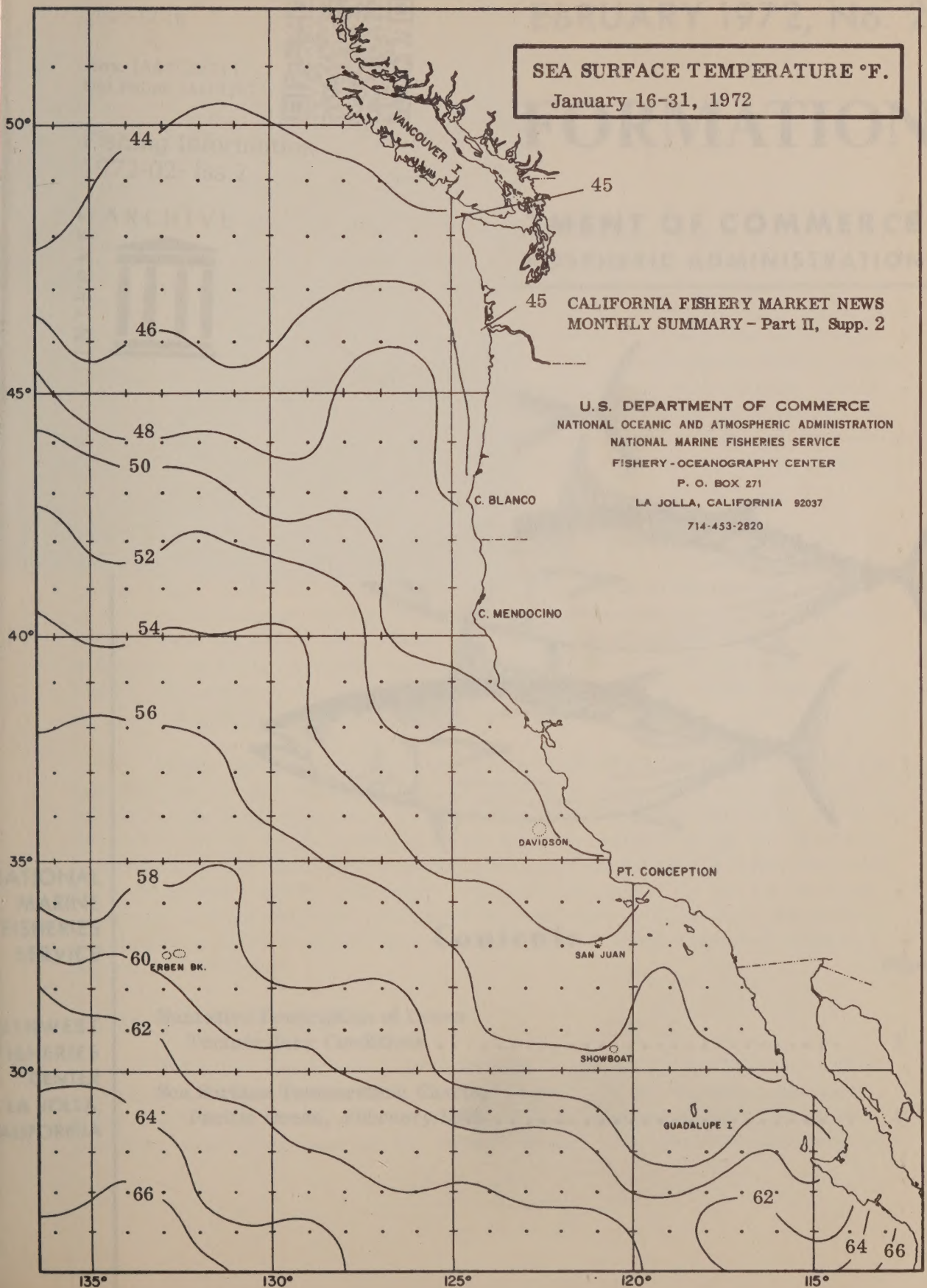
SEA SURFACE TEMPERATURE °F.
January 16-31, 1972
CALIFORNIA FISHERY MARKET NEWS
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